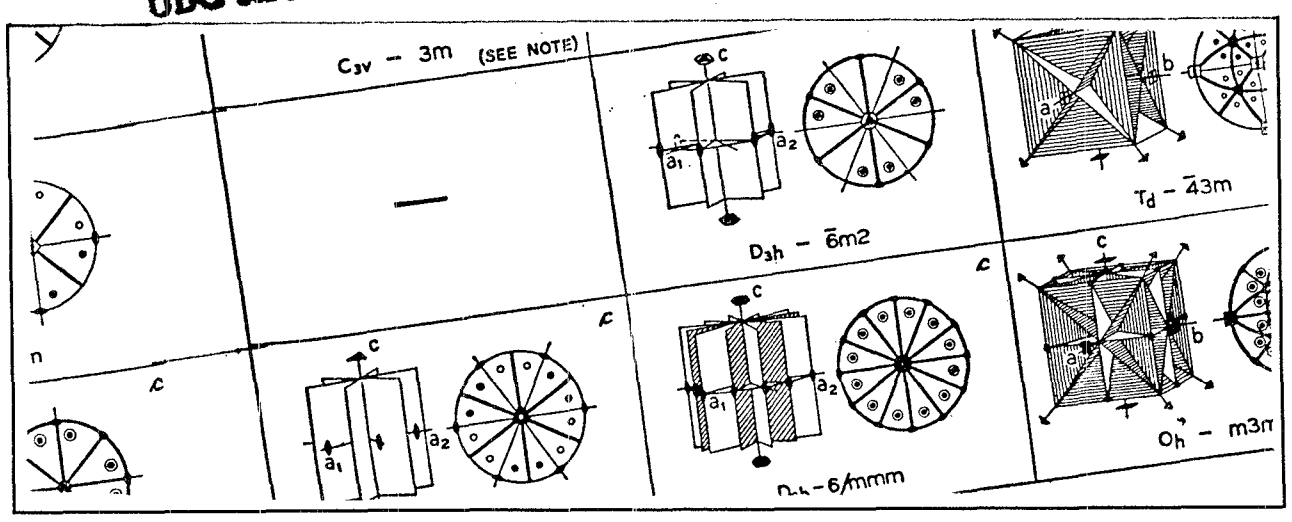
UBC Archives Serial



The 432

Volume 4, Number 4 The Newspaper for Science Students Wednesday, Oct. 17, 1990

Students Create Cold Fusion

Perpetual Motion Continues, Entropy Bypassed in Related Stories

Two weeks ago, *The 432* opened its gates to those brave, startling inventions which seem to spite the laws of science — at least, as currently understood. Schemes for infinite power production and disqualifications of mathematics flooded our mailbox; our ace task force, assigned to assessing feasibility under *The 432*'s New Improved and Revised Scientific Method, attempted numerous analyses of the revolutionary suggestions.

And now, after much trepidation, *The 432* is proud to present to you, its readers — for the first time anywhere — what are indubitably the three most significant, astounding, and utterly-sure-to-change-the-whole-wide-world-and-the-way-we-live-in-it creations said world has ever known.

1st: Graphics Materials

Cold Fusion Discovered in Totem Park Shower Stall

A genuine breakthrough in energy production

designed by W. Ho

•Upon turning shower control knob $^{3\pi}/_{4}$ radians anti-clockwise, a mist of approximately 0.2K water strikes the occupant at approximately 30° from the horizontal.

•This action causes cold temperature burn-like symptoms on the experimenter.

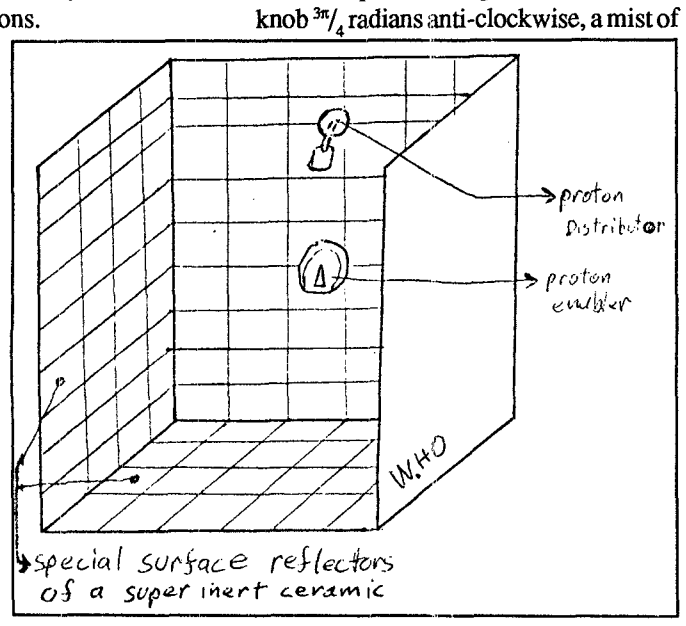
•The experimenter then lets out a scream which is amplified by three-fold multi-resonance from the specially-designed heat-concentrating, sound-reflecting ceramic tiles lining the booth.

•From the resonance and amplification, there is enough energy to instantly fuse the minute traces of hydrogen ions present in the shower stream. This gives energy output equal to:

$$E = [m + P_L(e^{(r/\sin\alpha)})(n)(\rho_{EW})(T_W)]c^2,$$

where:

m = mass of Hydrogen converted
P_L = mass of experimenter
r = distance control knob is turned (in radians)
α = angle of attack of water
n = mass of experimenter/Avogadro's Number
ρ_{EW} = density of the gas that the experimenter gets from eating at the Totem café
T_W = initial temperature of water



Notes:

(1) There is on average a 20-fold net energy gain from this reaction.
(2) This is a highly controlled reaction — not a chain reaction (ie, the reaction continues until thermal breakdown of tiles or until experimenter goes hoarse).
(3) The radiation shield/shower curtain has been omitted from the diagram for ease of viewing.

2nd: A Science T-Shirt

Perpetual Motion Based on a Rotating Black Hole

designed by Alan Douglas

(i) Place Dolly Parton in a polar orbit of radius R about any convenient rotating black hole with mass M and period T.
(ii) It is known that gravitational tidal effects will perturb Ms. Parton's assets at a frequency

$$f = \frac{MGT}{R^2B},$$

where G is the gravitational constant and B is her bra size.
(iii) Place Kurt Preinsperg inside a solenoid in an equatorial orbit such that his Poynting vector intersects Dolly's tangent at an angle of 90 degrees. Adjust his orbit so that its frequency matches that given above.
(iiii) The synchronised orthogonal combination of Lorentz contraction and genital expansion will create quantum fluctuations inducing magnetic monopoles in Kurt's hormones.
(v) The rapidly moving magnetic hormones will induce an electric current in the solenoid, powering entire star systems if necessary.
(vi) By extrapolating Kurt's past hormonal activity, we see that this effect can be continued forever.

Continued on page 4...

Watch This Space!

The Academics Committee needs an Academics Coordinator!

This position must be held by a Science undergraduate — ie, a member of the S.U.S. Duties include helping to coordinate the Teaching Excellence Award and the *Black & Blue Review*. If you're interested, or want more info, contact Caireen, Internal Vice President, at 228-4235 (S.U.S.) or 228-3116 (Physsoc).

... for upcoming info on the Black & Blue Review, the Teaching Excellence Award, and anything else to do with the Academics Committee. Meetings start the week of October 22nd, 1990, time and place TBA. All Science students are welcome!

(For more information, contact Caireen at 228-4235 or 228-3116.)

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Please Recycle This Paper!

Editorial: Science for the Masses

by David W. New

A wagon of mass 1.2kg with frictionless wheels sits atop a sphere of radius R, *and is connected by a taut, massless string of length* $^{R}/_{4}$ *to a block of mass 0.7kg, partway down the side of the sphere. The coefficient of friction between the block and the sphere is 0.18. If the block is released at time* t=0, *at what time will the wagon hits the block?*

We've all seen questions like this; we've all avoided them or foisted them off on our T.A.'s. Many of us have wondered who cares: anyone stupid enough to leave a perfectly good wagon teetering at the top of a sphere, or to waste a massless string on a Newtonian mechanics experiment, deserves to have their block smucked into. Hard, and with a coefficient of restitution of about 0.2.

Anyway, that's all as may be. What's really bothered us — I know you've wondered; you can't hide it any longer — is how and why people craft such horrid problems, and whether those scarce, legendary individuals exist who actually solve them. And while, unfortunately, the second of these questions must remain a mystery, the first one has finally been answered, when *The 432* obtained a top-secret partial transcript of a Ph.D. oral defence last month.

Examiner 1: Here are five massless springs with spring constants *a, b, c, d,* and *e*.
Examiner 2: Hook them up so a Physics *120 class will* be confused.
Examiner 3: The answer is to be 5/3.
Examiner 4: You have ten seconds.
Student: Uh ... hook them up end to end in a circle in vacuum so they're bouncing, spin the circle around its axis at a frequency *f*, flow a current *I* through the resultant rotating toroidal solenoid, measure the change in flux density at an arbitrary point x_0 inside the solenoid, and then divide 10 by 6.
Examiner 3: Thank you.
Examiner 2: Here are a wagon of mass *m* with frictionless wheels, and five identical masses of mass *n*.
Examiner 4: Build a statue of the Clock Tower.
Examiner 1: Don't fail to ignore the barometric pressure.
Examiner 2: Fnord.

Clearly, the student (whose voice, alas, was not identifiable by the elite Physsoc Tutorial Corps — or if they could, they wouldn't admit it) had prepared extensively for this examination; equally clearly, she was being trained to pose atrocious mindbenders while simultaneously brainwashed into forgetting that an experience so traumatic had ever occurred.

The masses used in such examinations, incidentally, are manufactured at a New England warehouse known as Boston Mass. They come in five basic shapes (cube, sphere, wagon, hoop, and infinite plane) and four colours (red, white, transparent, and black-body), although other selections are available on request. Their mass market catalogue with telephone order service is available at most Physics department offices in North America, but kept under tight security lest an undergraduate stumble across it.

The reasons for this apprehension are threefold: first, should undergrads be able to launch a counterattack against their tormentors, the entire fabric of civilization might be disrupted; secondly, since gravitational accounts can only be settled by credit card — Boston will post no bills — and no Physics department has an infinite line of charge, unauthorized personnel are discouraged from saying mass; and thirdly, proper care and nourishment of a mass requires a two-week introductory course (usually taken with an M.Sc.). Even then, masses, especially the small ones, remain unpredictable; even for the oldest hand, a mass reaction can quickly go out of control.

Indeed, signs of a mass independence movement have recently sprung up at several California universities. An organization calling itself the Western Block Nation has staged repeated sit-ins at local government offices calling for such reforms as metric equality and mass suffrage; a possibly related Kansas group known as Capacitors for Freedom has threatened "widespread blackouts across the Midwest if anti-EM discrimination doesn't end soon. Resistance is useless!"

Evere eager to be a part of the mass media, *The 432* recently sent staff reporter Sven Schwarzhand to speak with one such oppressed mass, a 3.4kg brick from Red Deer named Clyde Moberly. Following is a transcript of the interview.

Schwarzhand: Good evening, Mr. Moberly.
Moberly: (pause)
Schwarzhand: Recently you took part in an experiment where you were being moved a distance *x* by person A in 45 seconds and by person B in 60 seconds.
Moberly: (pause)
Schwarzhand: According to our diagrams of the event, person B slipped on a wet banana peel and, its coefficient of friction being only 0.04, accidentally threw you into a well of height *d*. How does that make you feel?
Moberly: (pause)
Schwarzhand: Thank you very much for this chat, Mr. Moberly.
Moberly: (pause)

Moberly, briefly entering a state of absolute rest, declined to answer whether he knew the leader of the independence movement, rumoured to be one Pierre Einstein. However, the next Californian gubernatorial elections will not be fought on physics, and nor will the next; the movement isn't likely to spread to British Columbia this decade.

So only one disturbing puzzle yet remains: why, in such problems as the one above, is *g* equal to exactly 9.8 — at what insane altitude do these experiments occur? As we blithely file out of the Hebb Building, are we risking being struck by a frictionless wagon falling at v_T, massless string in tow?

I'm sure it's one of those quantum things.

While writing my editorial for the last issue, I did a fair bit of research on the current state of affairs at the AMS, double-checking all of my facts before presenting them (except one, which I presented as a "rumour" — which it is). Still it wasn't enough; a number of people have independently approached me with corrections.

It's one thing to bias an editorial by glossing over facts you'd rather ignore, but using falsehoods to support your thesis, even in good faith, is quite another, and the sloppiest of journalistic practices. I'm not proud of the state of affairs in student politics right now — there *are* covert campaigns which are out to get people, which makes finding the truth out incredibly tough. And until things quiet down a bit, if they ever quiet down a bit, I'm keeping my editorial nose out of the whole schlemiel. But I goofed, and I'm sorry.

Irony is a wonderful thing, though: my whole point was that people should do research for themselves before blindly signing petitions — so of course it was I who hadn't done enough of it. My apologies to Johanna Wickie, to Jason Brett, to Pam Costanzo and to Alison Bain, and to everyone else concerned, for misattributions, misapprehensions, and misrepresentations. Not a one of you is Bad People, not by a long shot. And to anyone I gave such an impression: go check for yourself.

The Pre-Med Society Presents...

Tuesday, October 23rd
Lecture: Dr. Lee
The Cardiac Cath Lab
Woodward 1, 12:30pm

Tuesday, October 30
Lecture: Dr. Smith
Medicine and Child Abuse
Woodward 2, 12:30pm

Thursday, November 1
Field trip to the Cardiac Cath Lab
Details and signup sheet at the club office

Thursday, November 8
Interview Survival: Tips on how to impress the Med School Admissions Committee
Room TBA, 12:30-2:30
Coffee and doughnuts provided.
Admission free to members,
$2.00 to non-members

For more information, come by our office in IRC G30, Thursdays from 12:30 to 1:30.

That's Trivial!

-by Tanya Rose-

Hello again! This week, we thought we'd get away from science for a bit and go into history. Good luck! (Answers on page 8.)

Theme: Canadian History

1-10: Easy

1. Who was the first Prime Minister of Canada?
2. When was the Constitution patriated from Great Britain?
3. What acted as the Canadian Constitution until we brought our Constitution home?
4. Who is the current leader of the Federal NDP?
5. What two provinces did not pass Meech Lake by the June deadline?
6. How many gold medals did Canada win at the '76 Olympics in Montreal?
7. What company was granted exclusive rights to fur trading in Canada in the eighteenth and nineteenth centuries?
8. What was the last province to enter Confederation?
9. Who led the Manitoba rebellion of 1870 and the Saskatchewan rebellion of 1885?
10. What is the name of the massive oil project just initiated off the east coast of Canada?

11-15: Medium

11. What was the highest court in Canada before 1949?
12. Who fought on the Plains of Abraham in 1759?
13. When did B.C. enter Confederation?
14. What is the only land under provincial dispute in Canada?
15. What was the October Crisis?

16-20: Difficult

16. What treaty ended the War of 1812 between the U.S. and British North America?
17. What Prime Minister holds the record for the longest consecutive term in office?
18. Where is Canada's largest peace force stationed?
19. Where was the first French permanent settlement in Canada?
20. Who was the first modern European to set foot on Canadian soil?

Bonus Question: On five clear occasions, Canada has used the armed forces to deal with internal insurrection or perceived rebellion. Name them.

Sports Update...

Coming up this Friday, October 19th, at 12:40pm, is the annual United Way Run. Come out and support the United Way by making a donation at the SUB race centre and gain valuable sports points at the same time. Congratulations to Lynn McFarland from Geology and Fil Edora for their second-place finishes in the TRIUMF run on October 9th, and to Jared Nelson, who just missed winning the 5km Residential Run.

Coming up October 30th and November 2nd are the Hallowe'en Runs. Remember, these runs are not serious, so get out and have fun with your friends!

For the many of you who were unable to register for Cross Volleyball League this term because it filled up so fast, don't forget that registration for Term II starts *in November*. In fact, because gym time was so scarce, people started to play volleyball in racquetball courts. Come try it out in the Wallyball Winging on November 3rd (*register by October 26th = NOW*). Only six people need to register, so get a bunch of friends out and have a blast. If you would like to play volleyball in a regular court, drop-in sessions have started again on Thursdays at 7:30pm in War Memorial Gym, and there are two tournaments coming up in November: 3-on-3 Volleyball and CoRec Dome Volleyball. *Register now if not sooner*, as these are very popular.

Speaking of racquetball courts, the deadline for the racquetball tourney is Friday, October 26th, as is the Bookstore 3-on-3 Basketball Tourney.

Other events that can be registered for now are the Mountain Bike Ramp Climb, Trimble's Revenge Run, Curling Bonspiel, Pacific Rim Basketball Tourney, and Wimbledon Open Tennis Tourney.

Don't forget that there are tons of prizes, such as Science sports jackets, gift certificates to stores like Cap's and Forerunners, T-shirts, and badges, for getting lots of Science points — plus the *432 Cup* and cash prizes each term for the top three departmental clubs.

Remember — always register as Unit = Science or Unit = S.U.S. to get your 30% rebate. Teams or individuals placing first in their division and category get full rebates.

A copy of the sports points form is printed to the right. Fill this out or pick up a copy in SUS, CHEM 160, or your departmental club office, and submit it no later than Friday, November 16th to your departmental sports rep or me. Any events after this date will count for next term.

Come down and check out the Science Sports jackets — we'll be getting them in stock soon. They will be around $37-$38, plus you'll need at least 20 sports points (cumulative) before you can buy one.

Good luck to all the Loingboat teams this weekend. The Geers better watch out, as we're out to kick their butts (no really illegal tactics please). Geology is leaping ahead of the other clubs with this event — congrats for getting more than 50 members (of 80) out for it!

PRIZES!

The Great Big Sports T-Shirt Design Contest!
Become Famous by Having Your Design Emblazoned on an Incredible, Colourful 100% Cotton T-Shirt!

- **1st-place entry wins a coveted Science Sports Jacket and Sports T-Shirt!**
- **2nd-place earns a pair of Science Boxer Shorts and a Sports T-Shirt!**
- **3rd-place gets a Sports T-Shirt!**

Entries should be drawn or written in black only on plain white 8x10 paper. Just about anything goes, but no racist, sexist, homophobic or anti-Ari designs, please. Each entry should say "Science Sports" or "Science Sports UBC" somewhere on it.

Deadline for entries is November 2nd at 6:30pm.

PRIZES!

SCIENCE SPORT POINTS FORM

LAST NAME:_____ FIRST NAME:_____

PHONE #: _____ STUDENT #: _____

YEAR: ____ DEPARTMENT: _____

previous years' totals ____ ____ ____ term I total ____

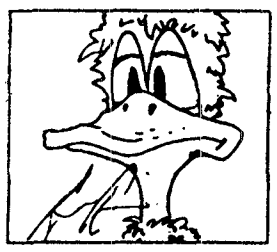
POINTS ARE ONLY GIVEN FOR PARTICIPATION IN A SCIENCE TEAM OR AS A SCIENCE STUDENT (INTRAMURAL REGISTRATION UNIT = SCIENCE).

	CATEGORY (W/M/COREC)	TEAM NAME	POINTS	*BONUS/ CAPTAIN	TOTAL
EVENTS (4 pts each)					
LOGAN CYCLE					
ARTS 20					
DAY OF LONGBOAT					
TOURNEYS (2pts)					
SPANISH BANKS V-BALL					
SOFTBALL I,II					
BROOMBALL I,II					
ULTIMATE FRISBEE					
ORIENTEERING					
FRENCH OPEN TENNIS					
TABLE TENNIS I					
VOLLYBALL I					
RAQUETBALL I					
3 ON 3 BASKETBALL					
3 ON 3 V-BALL					
COREC DOME V-BALL					
PACIFIC RIM BADMINTON					
CURLING BONSPIEL I					
WIMBLEDON TENNIS					
LEAGUE SPORTS (1pt per match)					
BASKETBALL					
VOLLEYBALL					
ICE HOCKEY					
FIELD HOCKEY					
BALL HOCKEY					
SOCCER					

	CATEGORY	POINTS	*BONUS	TOTAL
CYCLE SPORTS (2pts each)				
CYCLE HILL CLIMB(S)				
B-LOT CRITERIUM(S)				
MTN. BIKE TRAIL RACE(S)				
BARNYARD CIRCUIT				
MAD MELVIN'S (3pts)				
MTN. BIKE RAMP CLIMB				
MTN. BIKE CORRIDOR CRIT.				
RUNS (1pt 3km)(2pt 5km)(3pt>9km) points given for both Tues. & Fri. runs.				
INAUGURAL				
TREK COLOMB DAY				
HOMECOMING				
RESIDENTIAL				
MASH HOUSE HARRIER				
TRIUMF				
EDGE OF RAINFOREST				
RUN THE UNITED WAY				
WEST-EAST HALF				
NIGHT				
HALLOWE'EN				
BOULEVARD				
TRIMBLE'S REVENGE				
ASTRONOMY/STADIUM LOOP				
BEACH FOR THE TOP				
MUSEUM				

*Bonus: 3, 2, or 1 pts for 1st, 2nd or 3rd place finish, respectively.
Captains: 2pts for each team captain in a league sport per term.
1 pt for team captains of special events, tourneys etc.

A Tale of Two Kitties



I did it again this morning, and I feel guilty about it, like I always do. I know that it's natural, and it's not degrading or anything, but every time I do it, I feel cheap, dirty, and sinful. I did it in the bathroom, this time, and even while I was doing it, I knew the brief moments of gratification would be followed by hours of self-loathing and the gnawing feeling that I had somehow violated myself.

I read *The Province* this morning.

Heck, I don't want to be too harsh on Vancouver's own Tabloid. There are a lot of human interest stories that get coverage you wouldn't find in a "Serious Newspaper" like *The Times* or *The Post*. I mean, the average reader is interested in hearing that **Welfare Mom Won't Get Kidney Operation For Pet Kitty**. On the front page, no less, in bold black print bigger than when World War II broke out.

Really, do Vancouverites enjoy eating breakfast all bleary-eyed and groggy, with the headlines screaming back at them, **Priest Molests Daughter, Self, Then Axe Murders Welfare Mom's Kitty**? The other day, the front page was all about someone killing someone else in some bizarre family dispute. A person dead is news, yes, but down in the corner of the front page was our Interesting-Piece-Of-Trivia-Of-The-Day. Those crazy Germans were at it again. It seems they had gone and done some wacko thing like reunify. The picture was of a bunch of drunken German students, one of them holding high a Diabetic Kitty.

I think the word I'm trying to stress here is priority. Where's the logic in page nine going to the Iraqi invasion of Kuwait, while **Dead Kitty Speaks To Welfare Mom From Grave** gets pages one, two, and three? If Washington ever gets nuked by a SS-19, we'll read about it on page 43 in the Odd Spot, with the opening words, "Those nutty Russkies are at it again...."

But I want to rationalize why I read *The Province* in the morning. Apart from Terence Ross, who can never bet on the winning horse (note that the celebrity guessers, who don't know their elbows from their tailbones, seem to win a lot, but Terence Ross, the "authority" on track betting, is constantly in the red), *The Province* has a passable Sports section, and that's the only reason I read it. I need my morning hockey scores, so I can know how many points I didn't get in my hockey pool last night.

And I have to read the paper in the bathroom because otherwise Romeo, my Stupid Cat, will blow kitty snot all over it (Romeo has a cold, and enjoys, along with keeping you up at night by lying on your face and snorting through a stuffed-up nose, sitting on your chest while you lie on the couch, and sneezing on you) or else Sid, my Other Stupid Cat, will lovingly nuzzle you as you read, then trample on the paper, turn and face you, purring, and take a loving dump on the league standings.

It seems the cats know how to truly enjoy *The Province*. You deposit a bodily fluid on it.

I'm concerned, though, that *The Province* will run a front page story called **Butthead Physics Student Flushes Kitty Down Toilet For Sneezing**. I can't take it much longer. If it isn't one, it's the other. Sid (What Sid is short for is still under dispute. Schmoogy Wuggums wants it to be short for Sidney. As if that's a proper name for a cat. No dignity. Sid is short for Siddam Hussein. My second choice was Yassir Aracat.) loves people. So much, in fact, that Sid enjoys giving things to you. Last week, she cuddled up beside Tim-The-Roommate, and he started petting her. She arched her back, purring, tail high in the air, and left a very self-satisfied pile of kitty-poo beside Tim-The-Roommate. Within seconds, Romeo, in a show of moral support, dumped a load on the rug.

Actually, Tim-The-Roommate got off easy. He doesn't lose sleep at night. It's difficult to describe what it's like to wake up in the middle of the night with these cats. Maybe because half of the time you have woken up because one of the furballs has placed both paws up your nose and you can't breathe anymore. The other half, you just wake up on your own. Picture it: the room is dark, save for the light of the moon streaming in through the window beside you. Men wake up a lot at night, by the way. They are either freezing and half-naked because their Sweet Baboo beside them has wrapped herself into a cocoon with all the covers, or else they are immobile because Pumpkin Babycake has pinned them down with her legs, sprawled diagonally across the bed (which raises a question: why is it that men can sleep perfectly motionless, taking up a foot of bedspace, but women have to sprawl over everything and everybody. Can't they be comfortable without putting their knee in your ear?). But get back to waking up: you open your eyes slowly and stifle a scream, because Sid The Stupid Cat is sitting on your adam's apple, staring down at you, like a vulture over its prey. How did it know I was about to wake up? The best I can figure is that The Stupid Cat has been there all night, contemplating the best way to kill me.

She found it, by the way. She wants to drive me to suicide. She has developed a wonderful game. If you close your eyes, or open them again, or even flicker your eyelids, she'll swat at your pupil. What a lovely thought at night, when you know that eventually, while in REM sleep (REM: Rapid-Eye-Movement) Sid is going to pop out one of your eyeballs.

Then Romeo will sneeze on it. Or else they'll both have another Dump-Off.

Aaron Drake, when not waking up at night, dreams of moving to Malibu, buying a king-size bed, and breeding lynxes.

The 432

Volume 4, Number 4
October 17, 1990

Editor: David W. New
Eggnog

Writers: Aaron C. Drake
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Ari Giligson
Double Chocolate Fudge
Caireen Hanert
Chocolate Peanut Butter
Don Hitchen
Neapolitan
Orvin Lau
Coffee
Derek K. Miller
Rum Raisin
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Still Eggnog
Cathy Rankel
Hedgehog
Tanya Rose
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Cookies and Cream

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The 432 is the honest-to-goodness Publication of the whole darn UBC Science Undergraduate Society.

All its contents are © 1990 by their authors, or by that entire gosh-whilliking aforementioned Society if no name should happen by.

Deadline for submissions: Wednesday, October 24

Next issue: October 31
•A Hallowe'en review of the top ten chocolate bars!
•The usual stuff!
•And absolutely nothing else. That's right, nothing. You heard me. Blank space galore. Bwahahaha.

Tuesday. 12:30. CHEM 160. If you inhabit that space-time locality, why, you're at a *432* staff meeting. You're boldly standing up to write an article, take a photo, draw a cartoon, or perform nerve-curdling stunts for spare change. Cause you're special.

Inventions to Shake the World

Continued from page 1...

3rd: A Science T-Shirt

The Anti-Entropy Wave Freezer®

(Reverse Microwave Oven™)

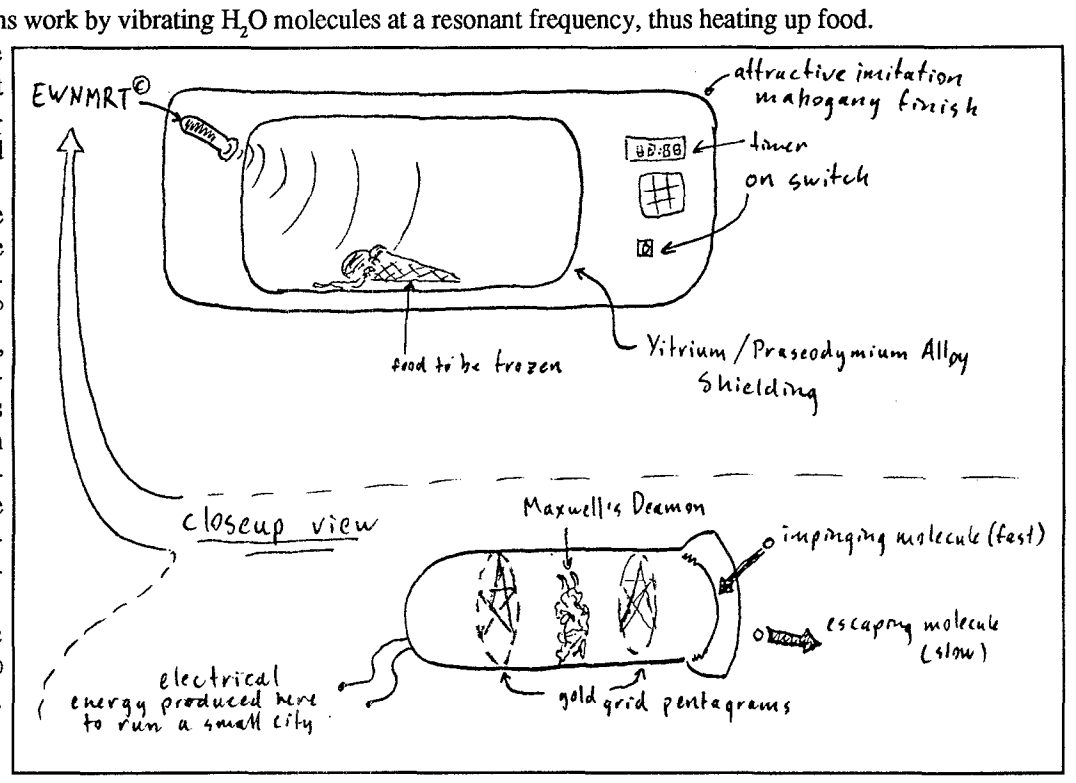
designed by Ari Giligson and Antonia Rozario

•Microwave ovens work by vibrating H_2O molecules at a resonant frequency, thus heating up food.

•Wouldn't it be great if we had a fast device like it, but for *cooling* food (eg, overheated microwave food)?

•Now, through the use of the Entropy White Noise Multisync Resonance Tube (EWNMRT© — as a catchy acronym), we can capture free random molecular collisions and amplify them through the phenomenon of Random Resonance Capture (Apek, *Journal of Irreproducible Results* 173-1, pp. 2247-2252)!

Here is the basic design of the AEWF® (Leutonia pat. pend. #17129129):



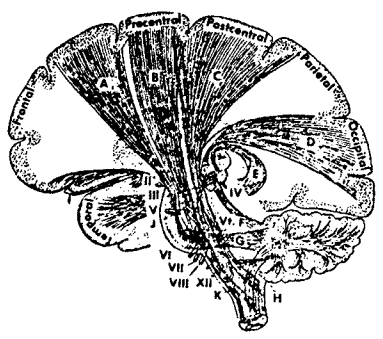
BUY SCIENCE BUY SCIENCE BUY SCIENCE BUY

Yes, it's time once again for that once-in-a-lifetime savings event:
The Semi-Occasional Science Hallowe'en Sale!

For two entire weeks *and* two extra-special-bonus days
— *at no extra charge* —
you can order *not only* Funky Science Sweatpants,
not only a Neat Science Sweatshirt,
but even a *Really Cheap Science T-Shirt* (or Baseball Cap)...
for only $35.00!

Yes, this marvelous fashion ensemble *can be yours* for *eleven full dollars* under the suggested retail price.
This **amazing**, **fabulous**, and **superfantastic** offer is only available at CHEM 160, and only until October 31st.

(This is also your last chance this year to order those amazingly cool Science Varsity Jackets — order before 1:00pm on October 22nd. Cost is $150.00; deposit is 50%.)



THIS IS YOUR BRAIN THIS IS YOUR BRAIN ON ARTS

SCIENCE HOLDS THE TORCH

A Public Service Message from the Staff of *The 432*

Worrying: Worth the Worry?

-by Don Hitchen-

The other day, I was walking in from B-Lot with the friend I carpool with. He said to me, "You have your first midterm today, don't you?"

"Yep, Geography," I replied. "Which reminds me, I gotta start studying for it."

In response, he asked if I was worried about it, to which I dutifully replied, "Are you kidding? I never worry about midterms. For what they make up of your final mark, they're hardly worth the time. Besides, what good is worrying going to do?"

This conversation led to a train of thought which lasted a couple of minutes at least, which for me is damn good.

For quite some time now I have wondered why people worry — worrying seems to me a concept to which there is no real point. To help myself gain some insight into this phenomenon, I checked the Oxford Dictionary of Current English (which I bought for the ECT cause they told me I should). Under "worry," the dictionary read, "give way to anxiety" ... right, what's anxiety? "Anxiety" was defined as, "a state of being worried or concerned." Dictionaries are such useful things.

Turning to a first-year Psychology text (Darley/Glucksberg/Kinchla, 4th ed.), "Anxiety is defined as a fearful psychological reaction to stressful events. **It often becomes itself a source of stress to which the individual must adjust.**" That's all fine and dandy, but it does not explain why people react this way, nor does is state what the act of worrying accomplishes.

The last couple of years, I have made a significant effort not to get worked up over things. When I was in high school, I always used to worry about my marks. I would worry about not having the grades for University, about the security of my virility if I failed a course and my father caught wind of it. At times, I was just a wreck. After I wrote my Algebra 12 final, I didn't stop shaking until two hours afterwards.

The funny part about it, though, all that worrying never changed the mark of my final; it didn't make me feel better; it just freaked out my mum. Nothing was gained from that little anxiety attack.

Well, since I liberated myself from this self-inflicted repression, I have had the opportunity to observe others going through the turmoil I once did. Midterms are great, man, do people get worked up over midterms ... but now figure, a midterm worth, say, twenty percent of this term is then halved with next term's work, and then the final is calculated in. I found the my Geography midterm was worth just over eight percent of the final mark for the course, so 55% on the test or 85% on the test would only alter my final mark by two percent. Catch my drift? Whether you get a pass or a first class is hardly going to affect your final mark in the end.

Now don't get me wrong, this is not a justification for not studying — in this case I did study, albeit for two hours before the test started — you still need to get that pass, and every little bit counts. But it you bung it up, don't sweat it, it's not the end of the world ... and even if it was, worrying wouldn't stop it being the end of the world, it'd only ruin what precious little time you had left.

Another point that comes to mind is those people who go scamming extra marks off the T.A. when they get a lab or assignment back. Last year, I decided to figure out how much one mark in my Physics 110 assignments was worth towards my final grade. Now, the assignments part of the course was worth five marks out of 150 (3.3%). This is divided by the fourteen assignments that counted throughout the year (0.24%), and then divided again by the ten marks each assignment was worth. In the end, every point on one of those assignments was worth 0.024%, one-fiftieth of a percent, and yet still people would complain if they got gypped a mark.

Now, if you were to bitch and bitch and bitch about every assignment you got back, and the T.A. gave you an extra two marks every time (very unlikely) just to shut you up, at the end of the year you would be the lucky winner of an outstanding two-thirds of a percent on your final grade. Now if that won't get you into med school, I don't know what will.

Treading on a little different ground, I have also noticed how destructive worrying can be to social relations. First off, I'd like to introduce you to worrying's twin brother "insecurity." The definition on this puppy is, "given to constant anxiety." (I see a pattern here.) Many people are insecure about themselves; they worry that they are not "socially acceptable" or that they "won't fit in with others" — or, my favourite, they "don't feel comfortable around strangers." The truth is, they don't feel comfortable about themselves around strangers. They worry about what others will think of them.

This is why alcohol is such a great social catalyst, because people become less inhibited to drop these walls and get goofy. They also find it easier to start talking to people they would not normally be totally comfortable with. If people were less insecure about themselves, and stopped worrying about it, social relationships would start out on a much easier step and they could stay sober.

Secondly, insecurity is one of the main hindrances in romantic relationships. People worry if their partner loves them, if he or she is being faithful, or why he/she "said that." People are insecure about their love. Guys are terrible for this; it often makes them do really stupid things, getting jealous, possessive or demanding. And women too fall victim to insecurity. It has gotten to the point where it is torture for me to watch friends of mine who are going together fight over trivial matters. I spent this past summer travelling with (among others) a couple who did nothing but fight over the stupidest things. Why? Who knows. If they would just not worry about it, they would be so much happier.

The fact of the matter is that worrying has absolutely nbo purpose, and accomplishes nothing. Now, some people might argue that worrying gives motivation to study more, but worrying is negative: it's better to have a positive motivation such as just trying to do better than before, or my own, doing your best. Like I said before, once you start worrying, not only do you have to deal with what it is that you are worrying about, but you must also deal with the anxiety you have created by worrying. So lighten up and reflect on the words of the immortal Alfred E. Neumann, "What? Me worry?" or of the nauseating Bobby McFerrin, "Don't worry, be happy," ... or of a mentally retarded lady who came into my work one day and said, "Don't worry 'bout nothin', cause it'll do ya no good."

This woman, I thought to myself, *has got life figured out better than most people I know.*

Don Hitchen also believes — as do I — in universal harmony and free baguettes to start the world off to each and every morning.

Worrying, Part II

-by Antonia Rozario-

One doesn't have to be a hopelessly maladjusted neurotic to do nothing but worry. Increased sensitivity and caution about the flavour of the nacho chips at the Gallery Lounge can enrich your life and win you friends. Worrying has been an integral part of my entire undergraduate life at UBC, and I'd like to share a few pointers so that others can experience the same rush of anxiety I live with each day.

•Don't just worry about finding a functional toilet during your one afternoon break at 12:30 — worry that the one you use won't have toilet paper or a fresh supply of hand soap.

•Don't just worry that acquaintances will find you shallow or insensitive — worry that they'll notice you've just eaten a Pitburger and that your breath now smells worse than their feet.

•Don't just worry about getting an education — worry that aging humdrum Psychology professors with too much time on their hands will publically question your opinions and do unrequested psychological analyses on your friends.

•Don't just worry about getting into a prestigious North American medical school — worry that your 59.44% overall academic average will have banned you from all post-graduate institutions.

•Don't just worry about finding a parking spot in B-Lot at 9:30am — worry about whether the five car accidents you had last year are going to cause your insurance premiums to go up.

•Don't just worry about the seven pounds you've gained since starting university — worry about the fact that your thighs have become farther-reaching than the Assiniboine River.

•Don't just worry about renewing your library books — worry that the last person to use the Woodward Library photocopiers before you was a nose-picker.

•Don't just worry about getting a nutritious, affordable UBC Food Services meal — worry that the woman who prepared your pasta salad didn't wash her hands after going to the washroom.

•Don't just worry about finding a comfortable place to relax during your lunch hours — worry that sleeping on SUB sofas can lead to pregnancy, social disease, or lice.

•And when in doubt, worry that you aren't worrying enough to notice all the people running in horror from the parsley between your two lower front teeth.

By following this simple advice, you'll turn into a healthier and happier human being, if the lines on your face don't frighten away everyone you know of the opposite sex.

Antonia Rozario believes that free baguettes would be mouldy by the time they got to inland Mozambique.

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on

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•The modelling of atmosphere-ocean systems and global climate systems.

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Thursday, Oct 18 12:30 Hebb 12

Dik Miller, Private Eye

-by Derek K. Miller-

I felt so used, slaving away in a CFC factory in the Amazon Rainforest which was powered by burning trees. It's sort of the ultimate insult, being forced to help my arch-enemies in the Death to Humanity by Slow Environmental Degradation Coalition. I had been assigned to a large lever. I didn't know what it did, but I knew I had to pull it three times every time a buzzer went off. If I didn't, a guard on a platform above me would machine gun me to death. Needless to say, it wasn't the most pleasant or intellectually challenging of jobs — especially without pay.

Shift change. Every day at this time (about 7 o'clock, but I couldn't be sure; my watch had been taken) I was shuffled out with a crew of other prisoners to the cantina, where we ate rainforest beef from non-recyclable foam plates, which were later dumped into a landfill. Each day as this happened I peered around, trying to find an escape route, seeing none. It was a miserable existence, not what I had expected two weeks before when I was cycling along University Boulevard. I sat down and started chewing listlessly.

"So, how'd you end up here?" asked one of my co-prisoners, a bedraggled-looking woman.

"You speak English?" I asked, incredulous.

"Yes. I'm a member of Earth First! These slimebags took me hostage while I was tree spiking a year and a half ago."

"A year and a half?" This was getting worse. Not that I think tree spiking is a good thing, but a year and a half in a South American sweatshop was a bit much as punishment.

"Yup. And I'm a vegetarian, too." She grimaced while gulping down another mouthful of steak. "How about you?"

"I ... er ... eat steak most of the time. But I ... um ... I don't actually *enjoy* it. Not that much."

"No, no. Why are you here?"

"I'm a private detective. I've been pursuing the D.H.S.E.D.C. for quite a while now, and they finally caught me and brought me here." I gave her a conspiratorial glance. "I'm planning on getting out."

She shook her head. "Don't bother. All of the obvious ways are traps. Just last week these two guys got out through a ventilation duct and were mulched by a passing tree cutter." Her eyes went hazy. "That's what always happens."

Okay, things were getting even more *noir* than the *film noir* genre dictates. I was becoming seriously depressed, and that sure isn't conducive to keeping my readers interested. I knew that something exciting had to happen soon.

Half an hour later we were being led to our bunks, where we would be allowed to sleep for six hours before waking and going back to work. Not exciting enough. Just then I had an idea — a brilliant plan to advance the plot, solve the mystery of who ran the D.H.S.E.D.C., and bring the whole terrible organization to a shuddering halt.

Before I could implement my plan, the ceiling in front of us burst open and deposited six heavily armed soldiers, garbed in gas masks and camouflage gear, on top of the front set of guards, knocking them unconscious. The fomer tree spiker, with whom I had been walking, turned around and whacked the rear guard in the groin, stunning him. One of the soldiers rushed back and pointed a gun in his face.

"Who the hell are you?" I asked the soldier in charge, whose name tag read MOOKA.

"American invasion force. We're here to get you out of the hands of these Iraqi doorknobs."

"Iraqi doorknobs?" I repeated.

"Yeah. Get you out of Iraq, back home."

"Um, I don't want to be rude, but this isn't Iraq."

"Kuwait, then."

I looked at him — or rather, I looked at his gas mask, which made him look remarkably like a giant bug. "You don't understand. We're in Brazil."

"Brazil?" He flipped up the mask. "What are you talking about?"

"We're in the middle of the Amazon rainforest. We're nowhere near Iraq or Kuwait."

Mooka rubbed his chin. "That explains all those trees."

"Anyway, you did save us from a life of perpetual hard labour. Thanks."

His eyes brightened. "Yeah, I guess we did. All right then, everyone follow us back to the copters. Move it, move it, move it!"

As we jogged along the corridor I heard him mutter something about kicking whoever gave him the wrong map right in the butt. I was glad to be out of this predicament, but it was a shame that I'd never been able to use my plan. Oh well, maybe next time.

Derek K. Miller, that effervescent emeritus of eccentricity, regards flowerpots as having outlived their usefulness on July 11th, 1814. He's still working on the time.

The 432's
4th Contest

First Prize, from the UBC Bookstore —
A Life-Size Plaster-Cast-of-a-Human-Body-Part Kit
Second Prize — Science Sweatpants
Third Prize — A Science T-Shirt

Make a photocopy. Of whatever. And give it to us.
Then we'll judge the lot and award you a funky prize.

That's it. That's all there is to it. Real simple.

Oh yeah. Get them in to CHEM 160 by Wednesday the 24th.

Senate Shorts

-by Orvin Lau-

Last Wednesday's Senate meeting was a short one, just under an hour. Thank goodness Senate is not like the AMS, where the meetings just go on, and on, and on, *ad nauseam*.

Since Senate is this university's governing academic body, teaching evaluations, being an academic matter, fall well under its jurisdiction. Those of you who have been keeping up to date will remember that the student senators put forth a notice of motion at the September meeting to strike an *ad hoc* (ie. temporary) committee to look into teaching evaluations. Well, that meant the motion would come up at the next meeting, namely the one that we just had.

Since I was the mover of the motion, I made the presentation for it. This was certainly not a case of rubber-stamping. (In fact, if you believe that Senate is just one big rubber-stamping body, you're mistaken — there are plenty of matters that are looked at with scrutiny, and I am not referring only to student motions.) So as you can guess, a vigorous debate ensued. Other senators liked the idea, but they felt that the motion should be reworded, so the motion was eventually amended with some words changed and a preamble added, and then passed.

All the student senators are happy with the way the motion was reworded: it doesn't change the committee's ability to look into teaching evaluations. I'm not going to actually quote the motion as amended and passed, as I may get it wrong: I'll do it next issue after I have checked the wording thoroughly on the tape recording of the meeting.

What happens now it that the Senate Nominating Committee, whose job it is to select the membership of all other Senate committees, will recommend which senators will sit on this committee; I'm quite certain that I will be one of the members. Then Senate will approve the membership at the November meeting, and the committee will get started on its work. So if you have *anything* to say about teaching evaluations, whether it be complaints, suggestions or comments, please tell me — the more student input, the better.

One other interesting thing came up at the meeting. Back in 1973, Senate made regulations concerning student representation at the faculty level. One of these regulations bars students from being represented on committees discussing appointments, promotions and tenure. So, during the debate on the teaching evaluation motion, one faculty senator attempted to add to the motion to have the committee review this regulation too. However, a point of order was brought up, saying that this amendment was not related to the original motion and was out of order, and consequently, the amendment was withdrawn. A notice of motion was served to strike another committee to look over this regulation. This motion will also come up in November, and I predict debate will be much more extensive.

I wonder if any of you do read this column. So to find out, I'm making an offer: the first person I don't already know who comes to me with some worthy comments, suggestions or complaints on teaching evaluations as I asked for above, I will buy one bzzr (or other drink) at the Big Bzzr Blitz on Friday, November 16. (SUS & AMS Council members are not eligible for this offer; also, I will be the final judge of for whom I will buy the drink.)

Orvin Lau, subject of an upcoming National Geographic special, detests all things rectilinear, moving diagonally if at all and never using the same pogo stick twice. He attracts parakeets.

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Departmental Elections '90

Polls in Chemistry, Woodward, and Wesbrook

NICKY as MEOLA
3rd YR Sci. REP.

Remember Your Last Science Rep's Name?

No? — Probably because he was only representing himself. I'll Represent You!

Vote Dave Dyment

For 3rd Year Science Representative

Hi. I'm Susan Saatchi. I am running for Biology Dept. Rep. You should vote for me for these 3 reasons

1. I have worked at the Dean of Sciences for 2½ years and am familiar with the logistics of the Biology Program.
2. I served as Sales Manager 1989/90 and I'm familiar with the functioning of SUS
3. I am not a Premed keener and I'm not doing this just to stuff my resumé.

I thank you for your time and hope you all take the opportunity to vote in the next election.

—SCIENCE ELECTIONS—

Only YOU can make a difference....
.... but I can make it easier.

Vote GIOVANNA VASSONE, 3d year Animal Biology Major, for a committed Biology representative on the Science Undergraduate Society.

Who's Acclaimed

4th year:	Mark Hönig
CpSc:	Pierre Houston
General:	Zubair Ladak
Geog:	Julie Orban
Geop/Astr:	Brian Stafford
Math:	Jason Russell
Micb:	Andrew Wong
Phys:	Mike Hamilton

Polls in Chemistry, Wesbrook, and Woodward will be open from 10:30 to 2:30 on Friday, October 19th. Bring your AMS card!

VOTE for AILEEN ABLOG for Chemistry Rep.

She is presently in 3rd year chemistry and is running for the position of Chemistry Rep. She would like to see more chemistry undergrads become more aware of the extra-curricular activities available; and help students with concerns pertaining to the chemistry department.
She has been involved with many committees in high school for social events and has helped organize events with the C.S.C. She is ~~basically~~ just crazy about Chemistry and wants to convert everyone into Dr. Jekyl.

Who's Running

3rd year:	Dave Dyment
	Nicky Meola
Biol:	Susan Saatchi
	Giovanna Vassone
	Peter Woo
Chem:	Aileen Ablog
	Ken Kan

Only students in 3rd year, Biology (any year), or Chemistry (any year) may vote in this election — but 3rd-year Chemists and Biologists get double the fun!

The Drawers of SUS

-by Catherine Rankel-

Just Desserts: happened Tuesday, October 2nd. "What *is* Just Desserts?" you ask. It's an opportunity for each constituency to nominate someone who has done something above and beyond their call of duty for that particular group. SUS Council nominated two people, Dean McBride and Ben Clifford of Chemistry. The evening gets capped off by a feast of ... just desserts. For the SUS, it all went extremely well, considering the poor leadership the President exhibited at the outset, leading seven worthy council members off in the wrong direction. We arrived late with muddied feet ... we sure worked for those desserts.

Anyway, I'm writing a letter to the Presidents of Science Undergraduate Societies of other universities, asking them about any events they put on for their Science students. If you have any suggestions (eg, BBQ's, etc.) which the SUS could feasibly put together, then please send them my way — CHEM 160 or 228-4235. If all else fails, we could revert to the traditions of the past ... picture yourself wearing a beanie, or better yet, caged in a tree if you forgot to wear your beanie....

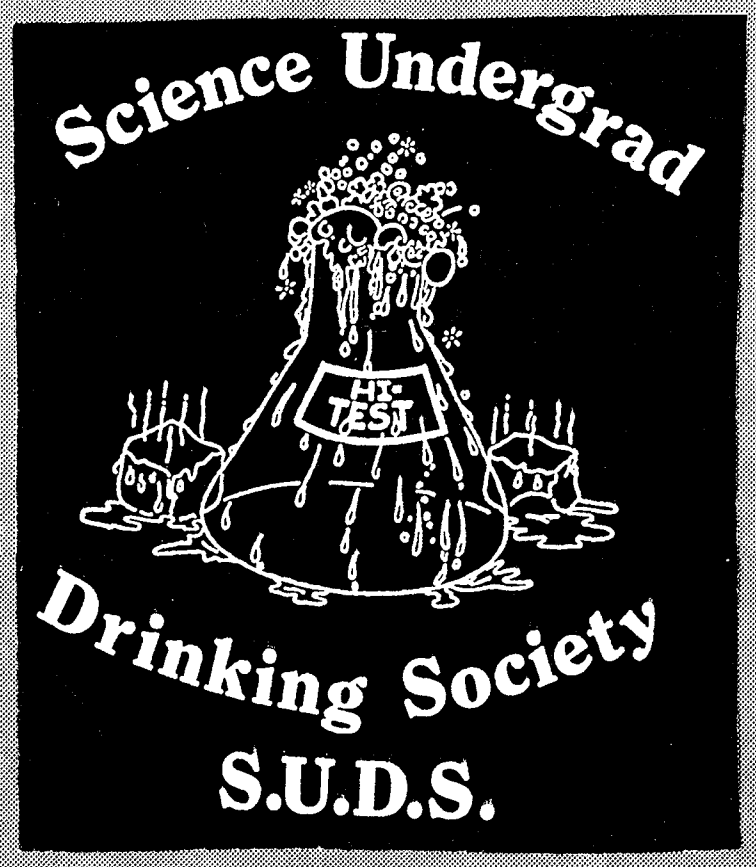
Science Week: is the third week in January. The Responsible One is Sandra Mah. She's extremely organized and things are really looking good for this year's Science Week. A tentative schedule has been planned and we are still looking for people to fill the positions of Blood Drive Coordinator (contact person with the Red Cross, arrangs for posters to be put up which the Red Cross supplies, hands out Blood Drop costumes ... I'm sure that one of you can handle this) and Tricycle Race Coordinator (purchases trikes, advertises, makes sure that teams get signed up ... again, it's not a lot for one person to handle; but if you feel that you want a little help, then bring a friend). The next meeting is October 24th at 5:30 in CHEM 160.

Upcoming Dance: shall remain nameless, but it's coming up. Watch for it around the middle of November.

***The 432*:** You're holding it. Without a doubt the hottest piece of newsprint on campus, and just think, you could potentially contribute an article or two....

Council Meetings: Every Thursday at 1:30 in the Council Chambers, upstairs in SUB (room 206). Any Science student is welcome to come.

Attention All UBC Clubs and Organizations!



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Note: SUDS is a non-profit organization whose mandate includes:

(1) The promotion of all bzzr functions (funerals and fraternity events excluded);
(2) The act of bribery as a source of encouragement; and
(3) The use of all shrubbery as alternate latrines.

SUDS does *not* endorse being stupid. Don't drink and drive.

CommentAri

-by Ari Giligson-

These days, the molecular biological sciences (Biochemistry, Microbiology, Immunology, etc.) are "kit" sciences. That is, there are commercially available kits or sets of products made to conduct almost any common protocol; all that the user need have is a proficiency in basic lab technique, pipetting and diluting, and a great deal of money.

For example, there are DNA sequencing kits and machines, plasmid vector insertion kits, kits and machines to biochemically amplify isolated DNA sequences a billionfold, and of course, machines to synthesize, from scratch, custom DNA sequences. There are kits to identify a bacterium to high accuracy — one need only grow a colony, stab it with a needle, and pull that needle through a tube. There is a machine that reads two-dimensional protein gels (like chromatography) and positively identifies almost every protein from a database — one need only have $30 000 to spend. And there are many, many more such labour-saving devices and systems.

"So, great," say you. "So, what's the big deal?"

The problem with this profusion of kits is not so much that the sciences involved will be overtaken by a bunch of button-pushing morons who can't do any more than run experiments as dictated by instruction manuals and automatically spew out pre-determined research publications pre-formatted on their computers ... because, after all, good scientists will still manage to put out creative experiments *despite* the labour-saving techniques. The problem is that science today is gently being nudged into certain research directions by the availability of fast techniques (ie. supply and demand — rules of the marketplace).

If you are a researcher looking for something to publish (which is, after all, what you get rewarded for), are you going to waste valuable time researching and developing a totally new protocol to apply to your problem, or will you settle for a commercially available method that may not be the best or most revealing experiment but is definitely the fastest way to get a paper out? The scientist is thus influenced by the rules of the marketplace which the manufacturers and suppliers have set up, as well as by the university's pressure to publish.

Certainly the manufacturers of kits are responding to a demand in the marketplace that was created by the scientists themselves, and the relationship in that sense is mutually beneficial. But, once a product is on the market and a great deal of money has been invested in its development, it is in the manufacturer's interest to keep it selling for as long as possible. Thus, new research methods, unless they are ground-breaking and pose the possibility of a whole new product line, are not what an established manufacturer would like to see.

Science must be wary of taking the easy way. It must be able to distance itself from the marketplace. Part of that responsibility lies in the university's evaluation of a researcher's worth in terms of numbers of papers published. And part of it must, as always, rest on the shoulders of the scientist.

A little-known but unsurprising fact about Ari Giligson is that if you stare at him for long enough, his hair falls off. Ari has eaten more than one macadamia nut.

That's Trivial! Answers

1. Sir John A. Macdonald
2. April 17, 1982
3. The British North America Act
4. Audrey McLaughlin
5. Manitoba and Newfoundland
6. None
7. The Hudson's Bay Trading Company
8. Newfoundland, in 1949
9. Louis Riel
10. Hibernia Oil
11. The Judicial Committee of the Privy Council
12. Montcalm (France) and Wolfe (Great Britain)
13. 1871
14. Labrador (between Newfoundland and Québec)
15. In October of 1970, the Fédération pour la Libération du Québec kidnapped a cabinet minister from Britain, and murdered one from Québec. This prompted Prime Minister Trudeau to use the War Measures Act to suspend civil liberties and impose martial law to deal with the crisis.
16. The Treaty of Ghent
17. Sir Wilfred Laurier (1896 - 1911)
18. Cyprus
19. Port Royal, in Acadia
20. John Cabot, in 1497

Bonus Question: The Riel Rebellions of 1870-71 and 1885, the Winnipeg General Strike of 1919, the 1970 October Crisis, and the Oka Crisis of 1990.

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